

Bubble Rings Entrapment

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Abstract

We show how micro-bubble rings are entrapped under a drop impacting onto a pool surface. This fluid dynamics video is submitted to the APS DFD Gallery of Fluid Motion 2012, part of the 65th Annual Meeting of the American Physical Society's Division of Fluid Dynamics (18-20 November, San Diego, CA, USA).

The video shows both results from numerical simulations using the *Geris* open source code and from ultra-high-speed video imaging using up to 1 million fps.

1. The numerical simulations show axisymmetric impacts where the drop is colored red and the pool is colored blue, while the air is green.
2. In the experiments the impact is viewed through glass bottom through the shallow pool. The running numbers on the lower right on many of the videos clips are in micro-seconds.
3. The work shown in the video builds on our earlier numerical study and is currently being revised for publication

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